## Abstract of the Disclosure

[0023] The present invention is a process for removing hydrogen sulfide gas from natural gas by contacting a flow of sour natural gas containing hydrogen sulfide gas with a scavenging agent including a group IIA metal hydroxide such as calcium hydroxide for a sufficient amount of time to form calcium sulfide and water to yield natural gas that is substantially depleted of hydrogen sulfide gas.

Sour natural gas may be percolated through a column containing a scavenging agent such as calcium hydroxide suspended as a fine particulate in water or a bed of dry calcium hydroxide granules. The scavenging agent may be periodically or continuously replenished with fresh scavenging agent rich in the selected group IIA metal hydroxide.

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